

ASBESTOS REMOVAL WORK PLAN
BUNKER HILL COMPLEX

The following plan addresses the identification and removal of friable asbestos-containing materials at the Bunker Hill Complex which are reasonably transportable and not associated with in-use equipment. The goal of this plan is to address, consistent with U.S. EPA, NESHAPS 40 CFR 61, Subpart M, and OSHA 29 CFR 1910 and 1926, nonoperational areas of the site from which asbestos might escape to the environment in concentrations of potential concern.

TASK 1: Data Review, Identification of Target Areas and Design of Asbestos Survey

Review of Data generated during the course of the Remedial Investigation has identified the existence of the following target areas which may contain potentially transportable friable asbestos materials and have not already been removed under the 106 Order dated October 24, 1989.

<u>Lead Smelter Area</u>	<u>Location</u>	<u>Description</u>
01-13-20	Brick Shed	2-1/2" pipe, 150 lf, located 12' above ground. Broken covering in some places.
01-13-25B	Paint Shop	Debris scattered on floor. Some torn sacks may contain asbestos. Deteriorating building structure approximately 20 ft x 20 ft in size.
<u>Zinc Plant Area</u>		
01-20-26A	Acid Plant #1	About 60 lf of pipe insulation outside on south wall. EPA has tested all other outside insulation and has determined it to be nonasbestos.

In addition to the data from the Remedial Investigation which included 92 asbestos bulk samples of material and soils, plans and drawings of the facility will be used to design an additional asbestos survey which will include a schedule, sampling protocols, sample handling procedures, and analytical procedures for interpreting the

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results and determining whether additional transportable friable asbestos can be identified other than that confirmed in the RI. The survey design will include a review of the existing Health and Safety Plan to ensure that asbestos survey procedures are consistent with this plan.

Task 2: Asbestos Survey

An AHERA-certified building inspector will conduct an asbestos survey of buildings and/or structures within the Bunker Hill Complex. Samples of suspected friable asbestos-containing materials (ACM) will be taken at all outside locations and analyzed. Sampling and analysis will also be performed of all suspected friable ACM inside buildings and structures assessed to be in poor condition (damaged or deteriorated) such that the materials and/or fibers may be transportable.

Sampling will follow a modified AHERA bulk sampling strategy which allows the inspector to establish a homogeneous area as an ACM with one positive bulk sample; but, depending on the size of the building or structure and type of material, it may require three, five, or seven negative bulk samples to establish a homogeneous area as a non-ACM material. Multiple sampling of damaged or deteriorated friable suspect ACMs and analysis of these materials with one sample per suspect ACM type will be performed. Materials testing negative for asbestos will have additional samples collected and analyzed for confirmation. Bulk samples will be submitted to a laboratory certified by the National Institute for Standards and Testing (NIST) to perform Polarized Light Microscopy (PLM) analyses on samples. Chain-of-custody forms will be employed to document the transfer process.

A report will be produced to summarize the findings of the asbestos survey. All bulk sample locations will be recorded on a site map. A list will be compiled to record the location and approximate quantity of transportable friable ACM. Analytical results of the bulk sample analyses will accompany the report. Transportable friable ACM will be identified and prioritized for removal based on the condition of the material, the type of material, the percent asbestos content, and the potential for exposure to workers and the public.

Task 3: Preparation of Asbestos Removal Plan

Based on the information obtained from the survey, a Removal Plan for friable materials identified as asbestos-containing (>1% asbestos) will be prepared. The Asbestos Removal Plan will include:

- o Location, quantity and analytical results of the transportable ACM;
- o Prioritization of the ACMs to be removed according to the extent of damage or deterioration, the potential for transport, and the percent of asbestos contained in the material;
- o Schedule for removal;
- o Methodology for the removal and handling of ACM and ACM waste, including any asbestos-containing soils;
- o Exact location of the disposal site where the ACM will be deposited;
- o Requirements to facilitate the site Fire Protection Contingency Plan; and
- o Preparation of a Site Safety Plan for removal activities.

Upon approval of the Removal Plan by the EPA, qualified subcontractors will be selected to perform the removal. EPA will be notified of selected contractors prior to the start of removal.

Task 4: Removal of Transportable Friable Asbestos-Containing Materials

Transportable friable ACM, as identified in Task 3, will be removed in compliance with the U.S. EPA NESHAPS regulations 40 CFR, Part 61, Subpart M, appropriate OSHA regulations, 29 CFR Part 1910 and 1926, and in accordance with the removal plan developed in Task 3.

Task 5: Transportation and Disposal of Removed Asbestos-Containing Materials

ACM removed from the Bunker Hill Complex will be transported to a landfill which has been approved for disposal of ACM by the U.S. EPA. The ACM will be double-bagged in 6-mil polyethylene, properly marked, and transported in closed vehicles as required by U.S. Department of Transportation, Title 49 CFR, Parts 171 and 172.

SCHEDULE

The following schedule is anticipated:

EPA Approval of Asbestos Removal Work Plan	0 days
Task 1: Data Review, Identification of Target Areas, and Design of Asbestos Survey	+15 days ⁽¹⁾
Task 2: Asbestos Survey	+30 days ⁽¹⁾
Task 3: Preparation of Asbestos Removal Plan	+45 days ⁽¹⁾
Task 4: Removal of Transportable Friable Asbestos-Containing Materials	+75 days ⁽¹⁾⁽²⁾
Task 5: Transportation and Disposal of Removed Asbestos-Containing Materials	+90 days ⁽¹⁾⁽²⁾

- (1) Refers to working days after EPA approval of the Asbestos Removal Work Plan.
- (2) Estimate only, dependent on ultimate volume of ACM to be removed and weather conditions.